



State of Utah

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Lieutenant Governor

Department of Environmental Quality

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Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

DAQE-IN0102730001-08

August 19, 2008

Mark Ashdown
Ashdown Brothers Construction
1134 North Lund Highway
P.O. Box 855
Cedar City, Utah 84720

Dear Mr. Ashdown:

Re: Intent to Approve: Modifications to AO (DAQE-525-01) to Change Equipment
Iron County – CDS B; ATT; NSPS; Title V Minor
Project Code: N010273-0001

The attached document is the Intent to Approve for the above-referenced project. The Intent to Approve is subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any questions you may have on this project to Mr. Enqiang He. He may be reached at (801) 536-4010.

Sincerely,

John T. Blanchard, Manager
Minor New Source Review Section

JTB:EH:sa

cc: Southwest Utah Public Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**INTENT TO APPROVE: Modifications to AO (DAQE-525-01)
to Change Equipment**

**Prepared By: Enqiang He, Engineer
(801) 536-4010
Email: ehe@utah.gov**

INTENT TO APPROVE NUMBER

DAQE-IN0102730001-08

Date: August 19, 2008

Ashdown Brothers Construction

**Source Contact
Mark Ashdown
(435) 586-1138**

**M. Cheryl Heying
Executive Secretary
Utah Air Quality Board**

Abstract

Ashdown Brothers Construction operates aggregate, asphalt and concrete plants near Cedar City in Iron County. The company has requested modifications to their Approval Order (DAQE-525-01) to remove the screen, the feeder, and the crushing plant of the aggregate plant. The equipment to be added to the aggregate plant includes a vertical impact crusher and two screens. Annual production levels remain unchanged. The vertical impact crusher is limited to 15% opacity. The site is located in an attainment area of the National Ambient Air Quality Standards (NAAQS) for all pollutants. New Source Performance Standards (NSPS), Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), apply to this source. Title V of the 1990 Clean Air Act applies to this source. The potential to emit totals, in tons per year, will remain unchanged as follows: $PM_{10} = 4.96$, $NO_x = 39.09$, $SO_2 = 8.03$, $CO = 10.65$, $VOC = 5.21$ and $HAPs = 0.62$.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notice of intent to approve will be published in The Daily Spectrum on August 22, 2008. During the public comment period the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing, it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed Approval Order conditions during this period and make any comments you may have. The proposed conditions of the Approval Order may be changed as a result of the comments received. Unless changed, the Approval Order will be based upon the following conditions:

General Conditions:

1. This Approval Order applies to the following company:

Site Office

Ashdown Brothers Construction
1134 North Lund Highway
Cedar City, Utah 84720
Phone Number: (435) 586-1138
Fax Number: (435) 586-9050

The equipment listed in this AO shall be operated at the following location:

Plant Location:

1134 North Lund Highway
Cedar City, Utah, Iron County

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,174.63 kilometers Northing, 316.96 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this Approval Order (AO) conform to those used in the UAC R307 and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.
5. All records referenced in this AO or in applicable NSPS, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request. Records shall be kept for the following minimum periods:
 - A. Emission inventories Five years from the due date of each emission statement or until the next inventory is due, whichever is longer
 - B. All other records Five years
6. Ashdown Brothers Construction shall install and operate the vertical impact crusher and two screens and shall conduct its operations of the aggregate, asphalt and concrete production in accordance with the terms and conditions of this AO, which was written pursuant to Ashdown Brothers Construction's NOI submitted to the Division of Air Quality (DAQ) on May 15, 2008 and additional information submitted to the DAQ on June 26, 2008.
7. This AO shall replace the AO (DAQE-525-01) dated July 5, 2001.
8. The approved installations shall consist of the following equipment or equivalent*:

Aggregate Plant

- A. One (1) El Jay jaw crusher, Model 1208 *
- B. One (1) El Jay 45" cone crusher, Model 115 *
- C. One (1) vertical impact crusher** rated at 100 tons/hour, manufactured in 1982
- D. One (1) screen**, 3'x8', manufactured in 1957
- E. One (1) screen**, 5'x16', manufactured in 1957

Asphalt Plant

- F. One (1) Madsen 4000 asphalt plant, 150 ton/hour (design capacity), Mfg 1964 *
- G. One (1) wet venturi scrubber

Concrete Batch Plant

- H. One (1) concrete batch plant with bin vent on associated cement silos
- I. Miscellaneous plant-wide equipment including loaders, dozers, water and haul trucks, conveyors, stackers, and small diesel fuel tanks

* Equivalency shall be determined by the Executive Secretary.

** Newly installed equipment.

- 9. Ashdown Brothers Construction shall notify the Executive Secretary in writing when the installation of the equipment listed in Condition #8.C, D and E has been completed and is operational. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If the construction and/or installation have not been completed within 18 months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-18.

Limitations and Tests Procedures

- 10. Emissions to the atmosphere at all times from the indicated emission point(s) shall not exceed the following rates and concentrations:

Source: Asphalt Plant Scrubber

<u>Pollutant</u>	<u>lb/hr</u>	<u>grains/dscf</u> (68°F, 29.92 in Hg)
TSP	3.67	0.030
TSP (RAP) ¹	4.28	0.035
PM ₁₀	2.94	0.024
PM ₁₀ (RAP)	3.43	0.028

- 11. Stack testing to show compliance with the emission limitations stated in the above condition shall be performed as specified below:

A.	<u>Emissions Point</u>	<u>Pollutant</u>	<u>Testing Status</u>	<u>Test Frequency</u>
	Asphalt Plant Scrubber	PM ₁₀ (virgin and RAP)	*	@

¹ RAP - Recycle Asphalt Pavement

B. Testing Status

* The initial testing was performed for TSP and subsequent tests shall be performed for PM₁₀.

@ Test every five years. The Executive Secretary may require testing at any time. Compliance testing shall not be required for both virgin and recycle materials during the same testing period. Testing shall be performed for the product being produced during the time of testing.

C. Notification

The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary.

The source test protocol shall be approved by the Executive Secretary prior to performing the tests. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary.

D. Sample Location

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2 or other testing methods approved by the Executive Secretary

F. PM₁₀

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201a, or other testing methods approved by the Executive Secretary. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM₁₀.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate, or other testing methods approved by the Executive Secretary. The back half condensibles shall also be tested using the method

specified by the Executive Secretary. The portion of the front half of the catch considered PM₁₀ shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Executive Secretary.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

G. Calculations

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation.

H. Existing Source Operation

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

12. Visible emissions from the following emission points shall not exceed the following values:

- A. All crushers - 15% opacity
- B. All screens - 10% opacity
- C. All scrubbers - 15% opacity
- D. All baghouses/bin vents - 10% opacity
- E. All conveyor transfer points - 10% opacity
- F. All diesel engines - 20% opacity
- G. All conveyor drop points - 20% opacity
- H. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

For equipment subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

Initial visible emission observations shall consist of 30 observations of six minutes each in accordance with 40 CFR 60.11(b). Equipment subject to NSPS Subpart OOO shall comply with 40 CFR 60.675(3) or 40 CFR 60.675(4). All visible emission observations

must be conducted in accordance with 40 CFR 60, Appendix A, Method 9. A certified observer must be used for these observations. Emission points which are subject to the initial observations are:

- A. The impact crusher in Condition #8.C
 - B. The screen in Condition #8.D
 - C. The screen in Condition #8.E
13. The following production limits shall not be exceeded:
- A. 400,000 tons of processed aggregate material per rolling 12-month period
 - B. 3,000 hours of aggregate plant equipment operation per rolling 12-month period
 - C. 10,000 cubic yards of concrete production per rolling 12-month period
 - D. 100,000 tons of asphalt production per rolling 12-month period
 - E. 3,000 hours of asphalt plant equipment operation per rolling 12-month period
 - F. 85 ton per hour - maximum production rate of the Madsen 4000 asphalt plant

Compliance with the limitations shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Records of production, including rolling 12-month totals, shall be made available to the Executive Secretary or Executive Secretary's representative upon request and the records shall include the two-year period prior to the date of the request. Production shall be determined by vendor receipts or weigh scale records. The records of production shall be kept on a daily basis. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log.

Roads and Fugitive Dust

- 14. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity at any point. Visible emission determinations shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle.
- 15. Ashdown Brothers Construction shall abide by all applicable requirements of R307- 205 for Fugitive Emission and Fugitive Dust sources.
- 16. All unpaved roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust. The application of water or chemical treatment shall be used. Treatment shall be of sufficient

frequency and quantity to maintain the surface material in a damp/moist condition or unless it is below freezing. The opacity shall not exceed 20% during all times the areas are in use. If chemical treatment is to be used, the plan must be approved by the Executive Secretary. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:

- A. Date
- B. Number of treatments made, dilution ratio, and quantity
- C. Rainfall received, if any, and approximate amount
- D. Time of day treatments were made
- E. Records of temperature if the temperature is below freezing

17. The haul road limitations shall be:

- A. ½ mile in length
- B. 15 miles per hour

The haul road speed shall be posted, at a minimum, on site at the beginning of the haul road so that it is clearly visible from the haul road.

18. Silos for Concrete Batching: All pneumatically loaded silos shall have the displaced air pass through a fabric filter device before being vented to the atmosphere.

19. Control of disturbed or stripped areas shall be required at all times for the duration of the project/operation per R307-205.

20. The in-plant haul road shall be paved and shall be periodically swept or sprayed clean as dry conditions warrant or as determined necessary by the Executive Secretary. Records of cleaning paved roads shall be maintained.

21. Water sprays or chemical dust suppression sprays shall be installed at the following points to control fugitive emissions:

- A. All crushers
- B. All screens
- C. All conveyor transfer points

The sprays shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary.

22. The storage piles shall be watered to minimize generation of fugitive dusts, as dry conditions warrant or as determined necessary by the Executive Secretary. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation.

Fuels

23. The owner/operator shall use only #1 or #2 fuel oil as a fuel source. The asphalt plant shall use natural gas, propane or fuel oil as fuel.
24. The sulfur content of any fuel oil or diesel burned shall not exceed 0.5 percent by weight. Sulfur content shall be decided by ASTM Method D2880-71 or D-4294-89, or approved equivalent. The sulfur content shall be tested if directed by the Executive Secretary. The percent by weight of the sulfur contained in the fuel can be obtained from the fuel oil certifications. Certification of fuels shall be either by Ashdown Brothers Construction's own testing or test reports from the fuel marketer. Records of fuel supplier's test report on sulfur content shall be available on-site for each load delivered.

Federal Limitations and Requirements

25. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, NSPS Subpart A, 40 CFR 60.1 to 60.18 and Subpart OOO, 40 CFR 60.670 to 60.676 (Standards of Performance for Nonmetallic Mineral Processing Plants) apply to this installation.

Monitoring - Asphalt Plant

26. The following operating parameters shall be maintained within the indicated ranges:

- A. Asphalt Plant Scrubber

The liquid flow rate (including make-up water) shall not be less than 420 gallons per minute (gpm) or more than 480 gpm.

They shall be monitored with equipment located such that an inspector/operator can safely read the output any time. The readings shall be accurate to within the following ranges:

- B. Liquid flow rate - Plus or minus 5 gallons per minute

All instruments shall be calibrated on an annual basis according to the manufacturer's instructions. Continuous recording for the monitoring device is not required.

Records & Miscellaneous

27. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on the information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on the equipment authorized by this AO shall be recorded.
28. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.

29. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the DAQ. The UAC R307 rules used by DAQ, the NOI guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

<http://www.airquality.utah.gov/>

The annual emission estimations below include point source, fugitive emissions, fugitive dust, road dust, tail pipe emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, nonattainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential to Emit (PTE) emissions for Ashdown Brothers Construction are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	4.96
B.	SO ₂	8.03
C.	NO _x	39.09
D.	CO	10.65
E.	VOC	5.21
F.	Total HAPs.....	0.62

The DAQ is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final AO.

Sincerely,

John T. Blanchard, Manager
Minor New Source Review Section